

CLAIMS

1. An apparatus for a wireless communication system, comprising:
means for determining available resources in the wireless communication system; and
means for determining an admission of a flow.
2. The apparatus of claim 1, further comprising means for scheduling an adjustment of an existing flow.
3. The apparatus of claim 1, further comprising:
means for determining time slot utilization by flows and priority violations in real time for existing flows; and
means for admitting a new flow based on the total time slot utilization.
4. The apparatus of claim 1, further comprising means for determining a threshold for admitting a new EF flow based on a fraction of time slots utilized by all EF flows.
5. The apparatus of claim 2, further comprising means for determining a threshold for admitting a new AF flow.
6. The apparatus of claim 2, further comprising means for adjusting a flow is determining too high a utilization based on priority violations among the flows.
7. The apparatus of claim 2, further comprising means for scheduling an adjustment is determining to terminate an EF flow.
8. The apparatus of claim 2, further comprising means for scheduling an adjustment is determining to degrade an AF flow to a BE flow.
9. A method for information transfer, comprising:
determining a threshold based on a time slot utilization by flows and priority violations in real time for existing flows;

monitoring the time slot utilization;
monitoring the priority violations; and
admitting a new flow only if the total time slot utilization is below the threshold.

10. The method of information transfer of claim 9, wherein determining the threshold for admitting a new EF flow is based on a fraction of time slots utilized by all EF flows.

11. The method of information transfer of claim 10, further comprising computing the time fraction based on an average DRC for all new flows.

12. The method of information transfer of claim 10, wherein the threshold is approximately in the range of 30 – 50%.

13. The method of information transfer of claim 9, further comprising determining the threshold for admitting a new AF flow is based on the sum of the actual time fraction of each AF flow, scaled by the ratio of the required minimum rate and a measured throughput of the new AF flow.

14. The method of information transfer of claim 13, wherein the required time fraction from the new AF flow is added to the sum.

15. The method of information transfer of claim 13, wherein the new AF flow is admitted if the total EF plus AF utilization is no larger than a threshold.

16. The method of information transfer of claim 15, wherein the threshold is approximately in the range of 30 – 50%.

17. The method of information transfer of claim 11, further comprising computing the average DRC for a new AF user from a moving average of the requested DRC during a connection setup.

18. The method of information transfer of claim 9, further comprising terminating an EF flow if its packet loss rate exceeds a value for a period of time.
19. The method of information transfer of claim 18, wherein the value is a smoothed drop rate higher than approximately 10%.
20. The method of information transfer of claim 18, wherein the period of time is approximately three consecutive seconds.
21. The method of information transfer of claim 9, further comprising degrading an AF flow to a BE flow if, over a period of time, the AF flow throughput is low compared with a minimum required rate for AF.
22. The method of information transfer of claim 21, wherein the low throughput is a smoothed throughput based on the linear estimation per a number of slots that is lower a percentage of the require rate for longer than a period of time.
23. The method of information transfer of claim 22, wherein the number of slots is approximately 300.
24. The method of information transfer of claim 22, wherein the period of time is approximately 3 consecutive seconds.
25. The method of information transfer of claim 22, wherein the percentage is approximately 50.
26. The method of information transfer of claim 9, further comprising adjusting a flow with too high a utilization if there are priority violations among flows.
27. The method of information transfer of claim 26, wherein the priority violations can be chosen from the group consisting of one or more flows whose throughput is lower than approximately 50% of the required rate and the one or more flows have a utilization higher than approximately 50%.

28. A computer-readable storage medium containing a set of instructions for a processor having an interface with other elements of an information transfer system, the set of instructions comprising:

- determining a threshold based on a time slot utilization by flows and priority violations in real time for existing flows;

- monitoring the time slot utilization;

- monitoring the priority violations; and

- admitting a new flow only if the total time slot utilization is below the threshold.

29. An apparatus for a wireless communication system, comprising:

- a memory device for containing a priority; and

- means for determining an admission of a flow.